TEST NAME: **Ratio and Proportions Challenging**
TEST ID: **752456**
GRADE: **07 - Seventh Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Assessment**

Student: _____

Class: _____

Date: _____

1. **In 1980, the temperature changed from -32 degrees to 15 degrees in 7 minutes at Great Falls International Airport in Montana. Which statement best describes this change?**

   A. The temperature increased $\dfrac{7}{47}$ degree per minute.

   B. The temperature increased $\dfrac{15}{47}$ degree per minute.

   C. The temperature increased $\dfrac{32}{15}$ degrees per minute.

   D. The temperature increased $\dfrac{47}{7}$ degrees per minute.

2. **Megan purchased 12 square yards of flooring for a total of $432. What was the price of this flooring per square foot?**

   A. $3

   B. $4

   C. $12

   D. $36

3. **Ms. Gallegos works 8 hours per day. She made $2,400 for working 10 days. How much money does Ms. Gallegos make per hour?**

   A. $24

   B. $30

   C. $240

   D. $300

4. Edward can run $\frac{1}{2}$ mile in 300 seconds. What is Edward's unit rate?

A. $\frac{1}{10}$ mile per minute

B. $\frac{2}{5}$ mile per minute

C. $2\frac{1}{2}$ mile per minute

D. 10 mile per minute

5. Terry bought $2\frac{1}{2}$ dozen chocolate chip cookies. She paid $15 for her purchase. If there were 12 cookies in each dozen, what was the cost per cookie?

A. $0.17

B. $0.50

C. $0.83

D. $1.25

6. Amy jogs $\frac{1}{3}$ of a mile in $\frac{1}{15}$ of an hour, while John takes $\frac{1}{30}$ of an hour to jog $\frac{1}{5}$ of a mile. If they continued at this rate, who would jog farther in one hour and by how much?

A. Amy would jog 1 mile farther than John.

B. John would jog 1 mile farther than Amy.

C. Amy would jog 2 miles farther than John.

D. John would jog 2 miles farther than Amy.

7. **Aircraft efficiency can be calculated as a rate referred to as passenger miles per gallon of fuel. The higher this rate is, the more efficient the aircraft. The table provides the data necessary to calculate the passenger miles per gallon of fuel for three different types of aircraft.**

Transportation Data for Selected Aircraft

Type of Aircraft	Gallons of Fuel	Passenger Miles
Boeing—747-400	3,378	235,584
Gulfstream—G-550	6,168	96,000
Eclipse—500	230	5,120

What is the rate of passenger miles per gallon of fuel, to the nearest tenth, for the most efficient aircraft shown in this table?

A. 15.6 passenger miles per gallon

B. 22.3 passenger miles per gallon

C. 69.7 passenger miles per gallon

D. 222.6 passenger miles per gallon

8. **Which situation can be represented by a true proportion?**

A. A store charged $20 for 2 shirts and charged $25 for 3 shirts.

B. An alarm on a clock beeped 7 times in 6 seconds and beeped 14 times in 12 seconds.

C. A signal light flashed yellow 7 times in 28 seconds and flashed red 5 times in 35 seconds.

D. A car used 3 gallons of gas to drive 72 miles on a highway and used 4 gallons of gas to drive 72 miles in town.